

U.S. Department of
Homeland Security

United States
Coast Guard



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FEB 03 2006

The Honorable Jerry Lewis
Chairman, Committee on Appropriations
House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

Conference Report 109-241 accompanying the Department of Homeland Security (DHS) Appropriations Bill, 2006, states "The conferees are very concerned about the availability and performance of the Coast Guard's patrol boat fleet....The conferees direct the Coast Guard to provide a patrol boat availability report to the Committees on Appropriations no later than February 10, 2006, which includes: an expenditure plan for the 110 service life extension program; a detailed explanation of the FRC's accelerated design and production that includes the application of the funds provided by this Act; and a mission hour and operational availability report for each 110 foot and 123 foot patrol boat in service."

The enclosed report responds to this request.

An identical letter has been sent to Chairman Cochran. I am happy to answer any further questions you may have, or your staff may contact my House Liaison Office at (202) 225-4775.

Sincerely,

A handwritten signature in black ink, appearing to read "JH Coll".

Enclosure

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The Honorable Thad Cochran
Chairman, Committee on Appropriations
United States Senate
Washington, DC 20510

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Sincerely,

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Enclosure



U. S. DEPARTMENT OF HOMELAND SECURITY

UNITED STATES COAST GUARD



REPORT TO CONGRESS

PATROL BOAT AVAILABILITY

Patrol Boat (WPB) Availability Report

This Patrol Boat Availability Report complies with requirements set forth in the Conference report on H.R. 2360, Department of Homeland Security Appropriations Act, 2006, requesting:

- *a detailed explanation of the FRC's accelerated design and production that includes the application of the funds provided by this Act;*
- *an expenditure plan for the 110 service life extension program;*
- *a mission hour and operational availability report for each 110 foot and 123 foot patrol boat in service.*

Executive Summary:

In the Deepwater contract that the Coast Guard awarded to Integrated Coast Guard Systems (ICGS) in June of 2002, the immediate patrol boat needs of the fleet were to be fulfilled by the conversion of 110-ft. patrol boats to 123-ft. WPBs with increased capabilities. The contract called for the introduction of the first new Fast Response Cutter (FRC) patrol boat to meet Coast Guard patrol boat missions and replace the 123-ft. WPBs from 2018 through the remaining years of the Integrated Deepwater System's (IDS) planned 40-year life-cycle.

Increased post 9/11 operational tempo and homeland security requirements, however, coupled with the advanced deterioration of the 110-ft. patrol boat hulls and increased costs and technical difficulties associated with 123-ft. WPB conversions, necessitated a new patrol boat solution under the Post 9/11 Deepwater Plan.

As a result, the Coast Guard halted Deepwater's conversion of 110-ft. patrol boats at eight hulls and accelerated, by approximately 10 years, the design of the FRC patrol boat with adequate capabilities for the new threat environment and homeland security mission requirements. However, this acceleration process requires that FRC hulls be designed for a longer service life to ensure they meet the Deepwater program's 40-year life-cycle.

To ensure the WPB fleet remains capable and reliable until relieved by FRCs, a 110-ft. WPB Mission Effectiveness Project (MEP) is needed to overcome the significant subsystem obsolescence and service life issues contributing to the high WPB engineering casualty rates. The WPB MEP plan is discussed later in this report.

The aim of this report is to provide Congress with the Coast Guard's updated, comprehensive plan to meet the Nation's near and long-term patrol boat needs, to include the following sections:

- Section I: Coast Guard Patrol Boat Plan, including a spending plan for \$78M in FY06 Appropriations
 - 123-ft. WPB Program Status & Funding Needs
 - FRC Program: Composite Decision & Schedule
- Section II: Patrol Boat (WPB) Mission Effectiveness Project (MEP) Plan
- Section III: Patrol Boat Mission Hour and Operational Availability Analysis

Patrol Boat Availability Report

Section I: Coast Guard Patrol Boat Plan

This section of the Patrol Boat Availability Report for fiscal year (FY) 2007 complies with requirements set forth in the Conference report on H.R. 2360, Department of Homeland Security Appropriations Act, 2006, requesting: “*a detailed explanation of the FRC’s accelerated design and production that includes the application of the funds provided by this Act.*”

FY06 Appropriations for Coast Guard Patrol Boats

The FY06 Department of Homeland Security Appropriations conference report (109-241) rescinded \$78 million of IDS patrol boat funding originally provided in fiscal years 2003, 2004, and 2005, and re-appropriated these funds for “...the service life extension of the Island Class patrol boats” [i.e. 110-ft. WPB MEP] and “the design, production, and long lead materials for the FRC.” The conference report also appropriated \$7.5 million for the FRC that remained separate from the re-appropriated FY02-FY05 funds.

This report reflects the Coast Guard’s plan, pending the approval of Congress, to spend this \$78 million in the following manner:

- Reprogram approximately \$13.3 million to achieve full operating capability onboard the 123-foot WPBs; and
- Dedicate the remaining balance to design, acquire long-lead materials and fund production of the first Fast Response Cutter.

The fiscal year 2005 emergency supplemental appropriations, H.R. 1268, conference report included \$49,200,000 to remain available until September 30, 2007, for major refits, renovation, and subsystem replacement for Coast Guard 110-ft. patrol boats. This funding will enable the Coast Guard to complete the first 6 WPB Mission Effectiveness Projects (MEPs) in fiscal years 2006 and 2007. Therefore, no additional funding is required for the WPB MEP program until fiscal year 2008. A comprehensive overview of costs and funding sources for the 110-ft. patrol boat MEP will be addressed in Section II of this report.

123-ft. Program Background

By February 2006, seven 123-ft. WPBs are scheduled to achieve operational status. Delivery of the eighth 123-ft. WPB is due for delivery to the Coast Guard in January 2006 and is scheduled to reach operational status in March 2006.

In response to complications with the converted 123-ft. CGC NUNIVAK, the Coast Guard established a requirement to strengthen the side plating hull (above the waterline below deck) on each 123-ft. WPB. These modifications take approximately three to four weeks for each hull. The reprogramming is necessary to complete the structural upgrades to hulls 4-8 and achieve full operational capabilities from the 123-ft. WPBs.

Composite Decision Driven by Post-9/11 Requirements on FRC

In accordance with the FY06 Appropriations Report language and the Coast Guard's operational needs, the remaining unobligated balance of the re-appropriated \$78 million is necessary to design, acquire long-lead materials and fund production of the first Fast Response Cutter.

As previously discussed in the Executive Summary of this report, the need for a revised patrol boat solution in the Post 9/11 Deepwater Implementation Plan was driven by a variety of factors. However, new requirements to operate in the post 9/11 threat environment could not be provided by stop-gap upgrades to the 110-ft. or 123-ft. WPBs, nor a simple acceleration of the FRC as originally envisioned in the ICGS proposal.

After extensive analysis, the Coast Guard and ICGS agreed that the revised requirements left two hull options for the FRC:

- A steel-hulled patrol boat approximately 160-ft. in length (increased from the pre 9/11 ICGS proposal of 130-ft.), or
- A 140-ft. to 147-ft., composite-hull patrol boat.

Benefits of Composite Hull

In July 2004 ICGS conducted an assessment for equivalent notional requirements between these two conceptual patrol boats, with preliminary financial findings based on a 147-ft. FRC indicating that the composite hull decreases the total ownership cost (TOC) of the 58 FRCs by approximately 18 percent or \$1.8 billion over the service life of the class. This \$1.8 billion of cost avoidance has already been factored into the Post 9/11 Deepwater Plan. ICGS and the Deepwater program are actively refining and maturing the FRC TOC analysis with results to be delivered by Critical Design Review in third quarter fiscal year 2006.

Hull Type	TOC (\$M)
160' Steel	10,907
147' Composite	9,083

The main reasons for these TOC savings are

- The superior projected service life of the composite patrol boat, which is expected to last 35 years, as opposed to the 20 year steel-hull life, and
- Lower Maintenance Cost (i.e. less paint).

In addition to the cost benefits discussed above, further analysis of the composite hull patrol boat indicates the following additional benefits:

- Increased Operational Availability -
 - Extended dry-docking cycle could save funds and increase potential availability.
 - Decreased hull maintenance enables optimized crew for performance of mission requirements and improved quality of life.
- Inherent Advantages of Composites -
 - Non-magnetic signature.
 - Increased quality of life.
 - Potential for future embedded apertures and sensors.
 - Minimal surface preparation and painting.

Composite Risk Mitigation

The benefits demonstrated by the composite hull analyses do not, however, support a careless “rush” to production. Composite technology has been used for decades in the manufacturing of U.S. Navy minesweeper hulls, civilian watercraft, military and civilian aircraft frames, and foreign military naval hulls. However, the Coast Guard and ICGS recognize their responsibility to apply this technology to the service’s specific patrol boat needs with guarded optimism and thoughtful risk mitigation.

Guided by the oversight of the Coast Guard’s most senior leaders, the Coast Guard and ICGS have developed the following rigorous design & developmental testing steps:

- Established a Composite Test Program and partnership with Office of Naval Research (ONR) to leverage previous ONR composite manufacturing risk mitigation testing results.
- Evaluate Structural Design of FRC via Global Finite Element Analysis. This analysis is being performed by the USN Naval Surface Warfare Center, Carderock Division (NSWCCD).
- Manufacture & perform fatigue testing for three separate FRC hull structural joints to help validate the hull’s integrity.
- Leverage efforts from the Office Of Naval Research Composite High Speed Vessel (HSV) Project to reduce cost and redundancy of Navy/Coast Guard composite research.
- Contract an independent design review. ICGS contracted for an independent agent to make assessment of the FRC design package.
- Invite American Bureau of Shipping (ABS) oversight by designing, building and classing the FRC to the ABS rules for “Classing High Speed Naval Crafts.”
- Solicit a NAVSEA Independent Cost Estimate, which validated planned design to cost (DTC) approach to FRC development.
- Conduct the following 3-phase model testing program for speed/power, small boat launch/recovery, and sea keeping capabilities:
 1. Bare hull testing of speed and power data currently indicates that the FRC can achieve 32 kts sustained speed which is expected to be 30 kts when

loaded for operations. This is significantly higher than the 28 kts sustained speed for the 110/123-ft class of patrol boats.

2. Launch and recovery testing of the stern-deployed small boat, or Short Range Prosecutor (SRP), results indicate capability of launching and recovery operations up to mid-high Sea State 4 (8.2 ft. wave height).



3. FRC sea keeping testing to date of good directional and platform stability and FRC maneuvering testing have yielded data that is currently being processed.



- Planned for a one year operational evaluation procedure consisting of three 90-day periods once the first FRC is completed. Phase I will test the ship's basic operating characteristics; Phase II will evaluate the ship's mission effectiveness; and Phase III will challenge the ship's overall design maintainability and reliability. This extended operational evaluation process will delay the production of follow-on FRCs until the Coast Guard is fully satisfied that the composite FRC delivers the necessary benefits to meet the Coast Guard's operational requirements and justify its per-unit production cost.

FRC Design to Cost (DTC) Constraint

In addition to mitigating risk in the development of the FRC design, the Coast Guard is acquiring the FRC under a Design to Cost (DTC) constraint to control cost. The DTC constraint, mandated by the Coast Guard's Vice Commandant, who also functions as the Agency Acquisition Executive (AAE), directed that the average follow-on FRC acquisition price (for FRCs 2-58) be \$40 million in FY04 dollars. The acquisition price is based on the contracted unit price with learning curve estimates and does not include government furnished logistics costs.

As the design process matures, the Coast Guard and ICGS will be challenged to incorporate as many of the "prioritized" post 9/11 performance capabilities as possible within the \$40 million threshold. However, the DTC design evolution has already led to a decreased length of the FRC while incorporating the most mission critical post 9/11 capabilities into a shorter 140-ft. FRC (capabilities listed on the next page). Even though the preliminary financial findings were based on a 147-ft boat, the design process has reduced the length from 147-ft. to 140-ft.

Prioritized Post 9/11 Requirements

Priority	Performance Capabilities	WPC Concept Design
1	Keep station on, maneuver around and intercept/escort commercial shipping at operational speeds of 30 knots minimum and <u>40 knots desired</u> .	IN DESIGN
2	Intercept, take station on, and maneuver around Targets of Interest (TOIs) that are operating erratically at full speed. (Speed, Maneuverability & Sea-keeping)	IN DESIGN
3	Provide security, food, water, sanitation, medical services, and shelter (separate from own forces) for 150 evacuees for 24 hours.	IN DESIGN
4	Exchange information directly with Sector/Groups/Activities. (INMARSAT)	IN DESIGN
	Interoperable with Rescue 21 - Voice	IN DESIGN
	Interoperable with Rescue 21 - Data.	Design to Cost (DTC) Limited
5	Disengage, evade, or avoid surface and air attack by:	
	Reduced radar cross-section (Frontal 30-degree hard body shaping, bulwarks & no radar absorbing material)	IN DESIGN
	Electronic Support Measures (ESM)	DTC Limited
	Soft-kill measures (Electronic Warfare & Decoys)	DTC Limited
	Evasion techniques (Speed, Maneuverability & Integrated Sensors)	IN DESIGN
	Emissions Control (EMCON) procedures.	IN DESIGN
6	Support, conduct, and share ESM intelligence information collection with joint and allied forces.	DTC Limited
7	Have inherent fragmentation protection from small caliber weapons and shrapnel.	
	Inherent Protection Against Small Weapons and Shrapnel	IN DESIGN
	Additional Armor Protection Against Small Weapons and Shrapnel	DTC Limited
8	Allow CG personnel to plan, provide and direct own ship and escorted unit defense.	IN DESIGN
9	Maintain real-time two-way voice and operationally responsive data communications, including interoperability and relay capability, with joint and allied forces.	IN DESIGN
10	Exchange track data with joint and allied forces using common Navy Links such as Link 11/16/22. (COP via INMARSAT)	DTC Limited
11	Operate in and around Chemical, Biological, and Radiological (CBR) environment for 36 hours:	
	Circle W and CBR Suit Storage	IN DESIGN
	Countermeasure Wash Down System (Installed Fire Hose Wash down)	DTC Limited
	Full Collective Protection System (CPS) to Operate in CBR Environment for 36 hrs.	DTC Limited
12	Reduce susceptibility to mines through the detection and avoidance of mine-like objects.	
	Reduce susceptibility to mines (Non-Magnetic & Low EO/IR Signature)	IN DESIGN
	Detection and avoidance of mine-like objects (Sonar System)	DTC Limited
13	Be lifted by military or commercial cargo ship. (Structurally Designed for Lifting)	IN DESIGN

FRC Current Schedule: Projected Program Milestones

The FRC will be designed and constructed by Northrop Grumman Ship Systems (NGSS), the lead system integrator for surface assets under ICGS. FRC design is being completed at Northrop's Avondale facility in Louisiana, with construction to occur at the Gulfport, Mississippi, Composite Center of Excellence.

Hurricane Katrina severely impacted both the physical facilities and the lives of all the men and women of the Gulf Region. The Coast Guard is still awaiting a formal ICGS determination of Katrina impacts to FRC program NGSS labor rates. However, Hurricane Katrina did cause delays in the program schedule, most notably pushing the targeted delivery of FRC #1 from the first quarter of FY08, to the first quarter of FY09. This projected delay was a result of severe wind and flooding damage to the design facility, loss of computer files and extended displacement of a significant portion of the workforce.

The following schedule reflects milestones achieved and identified delays due to Katrina:

- System Requirements Review (SRR) - April 27, 2005 (complete)
- Preliminary Design Review (PDR) - September 16, 2005 (complete)
- Critical Design Review (CDR) - March 2006
- Production Readiness Review (PRR) – October 2006
- Start Production – 2nd Qtr FY07
- Delivery – 1st Qtr FY09
- Operational Demonstration Period – 1st Qtr FY09 thru 1st Qtr FY10

FRC #1 Cost Status

The current total cost projection for FRC lead ship design, construction, and certification is \$151.8 million. This reflects a significant cost growth attributed to the selection of a composite hull and associated design iterations. The Coast Guard's \$42 million FY 07 Capital Investment Plan, combined with the FY06 appropriation, prior year appropriations and the remaining balance of the \$78 million rescission after reprogramming \$13.305 million to the 123 ft close-out, will accommodate the design, long lead time material, production, and extended 1 year evaluation.

The cost breakdown contributing to the \$151.8 million value of the first FRC, includes:

- Design: \$75.5 million
- Long Lead Time Material: \$24.5 million
- Production: \$47.8 million
- Full Operating Capability (FOC): \$4 million
- 1 year Operational Evaluation: 4.9 million

Patrol Boat Availability Report

Section II:

Patrol Boat Mission Effectiveness Project Plan

This section of the Patrol Boat Availability Report for FY07 complies with requirements set forth in the Conference report on H.R. 2360, Department of Homeland Security Appropriations Act, 2006, requesting “*an expenditure plan for the 110 service life extension program.*”

Per the Coast Guard Revised Deepwater Implementation Plan, many of the 110-ft. and 123-ft. WPBs will remain in service for the next 17-18 years. To ensure the WPB fleet remains capable and reliable for the duration of its planned service life, a WPB Mission Effectiveness Project (MEP) is needed to overcome the significant subsystem obsolescence and service life issues contributing to the high WPB engineering casualty rates.

The fiscal year 2005 emergency supplemental appropriations, H.R. 1268, conference report included \$49,200,000 to remain available until September 30, 2007 for procurement of new U.S. Coast Guard 110-ft. patrol boats or major refits, renovation, and subsystem replacement for these boats. Prior to the obligation of funds, the Coast Guard was required to provide, to the House and Senate Appropriations Committees, an analysis of the costs and benefits of procuring new 110-ft. or 123-ft. patrol boats versus renovating the existing 110-ft. patrol boats. The analysis provided on 14 July, 2005 revealed that the greatest return on investment for the allotted \$49.2 million is the renovation of legacy patrol boats. This funding will enable the Coast Guard to conduct the first 6 WPB MEPs in fiscal years 2006 and 2007. As future needs are clarified, the Coast Guard will request funding for additional 110-ft. patrol boat MEPs in future budget submissions to Congress.

WPB MEP Plan Summary

	Cost	Schedule	Funding Source
110-foot WPB Hulls (18 ea.)	N/A	FY09- FY14	Decommissioned per Post 9/11 Deepwater Revised Implementation Plan
123-foot WPB Hulls	N/A	FY24- FY26	Decommissioned per Post 9/11 Deepwater Revised Implementation Plan
Lead Ship WPB MEP Cost	\$13M	FY06	Fiscal Year 2005 Emergency Supplemental Appropriations, H.R. 1268
110-foot WPB Hulls 2 - 6	\$36.2M	FY06- FY07	Fiscal Year 2005 Emergency Supplemental Appropriations, H.R. 1268
110-foot WPB Hulls 7 - 23	TBD	FY08- FY11	Deepwater Legacy Asset Sustainment

The WPB MEP is comprised of two tiers: (1) 110-ft. WPBs requiring major hull repairs and (2) 110-ft. WPBs requiring only minor hull repairs. Each WPB work package includes extensive mechanical and electrical work. The MEP has three major objectives: (1) completion of hull and structural repairs; (2) replacement of obsolete, unsupportable, or maintenance-intensive equipment; and (3) completion of major maintenance. Each MEP will be employed in a manner that addresses the greatest WPB hull and subsystem issues on a hull-by-hull basis, taking in to account their expected service life to avoid over-investing in a particular hull while maximizing return on investment. Therefore, actual WPB MEP costs will vary from hull-to-hull based on the physical condition of each vessel, the extent of previously completed work, and the planned service life of the hull. As detailed in the following table, WPB MEP costs will range from \$5.5 to \$7.0 million per cutter. The cost estimate for the first (“Lead Ship”) WPB MEP (up to \$13 million) is significantly higher than the follow-on hulls, because the non-recurring engineering and project start-up costs associated with this effort are built into the estimate for the lead ship.

<u>Work Item</u>	<u>Cost</u>
1. Structural hull repairs	\$300K --- \$1,500K
2. Steering room & Battery space structural repairs	\$30K --- \$50K
3. Install new waste oil and grey water tanks	\$30K --- \$120K
4. Install spray rail extension	\$0K --- \$20K
5. Replace main deck vents	\$0K --- \$30K
6. Forepeak, tanks, engine room structural repairs	\$40K --- \$100K
7. Renew coating system on exterior surfaces	\$20K --- \$100K
8. Routine Dry-dock and services	\$1,000K - \$1,000K
9. Underwater body repairs	\$250K --- \$250K
10. Install new fire detection & alarm system	\$300K --- \$300K
11. Renew electrical distribution sys & generators	\$1,000K - \$1,000K
12. Install new reverse osmosis system	\$50K --- \$50K
13. Install new gyro & auto pilot	\$200K --- \$200K
14. Install new davit	\$200K --- \$200K
15. Install new fins & rudders	\$500K --- \$500K
16. Berthing area rehab	\$200K --- \$200K
17. Renew piping throughout vessel	\$300K --- \$300K
18. Main diesel engine & reduction gear repairs	\$800K --- \$800K
19. Water tight door upgrades	\$40K --- \$40K
20. Galley rehab & deck renewals	\$140K --- \$140K
21. Engine room ventilations modifications	\$100K --- \$100K
Total cost (range)	\$5.5M --- \$7M PER WPB

It is important to understand that the Coast Guard does not seek to run every 110-ft. WPB through a MEP. Eighteen 110-ft. WPBs will be decommissioned in the near future as the FRCs begin to arrive in early 2009; therefore, it is not cost effective to include these vessels in the MEP. In addition, due to hull repairs and minor subsystem replacement conducted during the extension program, the eight 123-ft. WPBs will be maintained with Coast Guard base maintenance funding for the remainder of their service life without entering the MEP.

During the MEP program one of the four cutter crews undergoing MEP will be temporarily reprogrammed to staff the Legacy Sustainment Support Unit (LSSU) at the Coast Guard Yard which will be managing the MEP program. Once the MEP program is complete, these positions will revert back to the cutter fleet. The remaining 3 cutter crews will remain intact and while not at the Yard will be available support other operations in their Districts, including possible multi-crewing of other patrol boats.

Restoring hull integrity and improving equipment conditions will enable the Coast Guard to sustain these vessels within existing base maintenance funding levels. This approach mirrors the organization and execution of the 210-ft./270-ft. WMEC MEP.

Patrol Boat Availability Report

Section III:

WPB Mission Hour Availability

This section of the Patrol Boat Availability Report for FY07 complies with requirements set forth in the Conference report on H.R. 2360, Department of Homeland Security Appropriations Act, 2006, requesting “*a mission hour and operational availability report for each 110 foot and 123 foot patrol boat in service.*”

BACKGROUND:

The purpose of this section of the report is to update our projected availability of Coast Guard patrol boat hours provided in our report to Congress titled Patrol Boat and Ship Hours, dated June 21, 2005. This report is based on our FY07 budget submission and the Post 9/11 Deepwater Revised Implementation Plan. This plan includes eight conversions of 110-ft. to 123-ft. Maritime Patrol Boats (WPB), planned Mission Effectiveness Projects (MEPs) to extend the operational life of 23 A and B Class 110-ft. patrol boats, planned decommissioning of WPBs and a final WPB fleet consisting of Fast Response Cutters (FRCs).

The June 21st report to Congress illustrated a patrol boat (WPB) operational hour (OpHour) gap caused by the degrading WPB fleet and Operation Iraqi Freedom (OIF) support requirements. This gap between available hours and full 1998 110-ft. WPB hours will exist until FRC production provides enough FRCs to overcome the gap. We forecast the gap will be eliminated between 2009 and 2013 depending upon the timing of the return of our six 110-ft. WPBs deployed to Operation Iraqi Freedom. We have reduced our projected gap reported in June 2005 report by reducing the number of WPBs required to undergo MEP each year from 7 to 4 cutters.

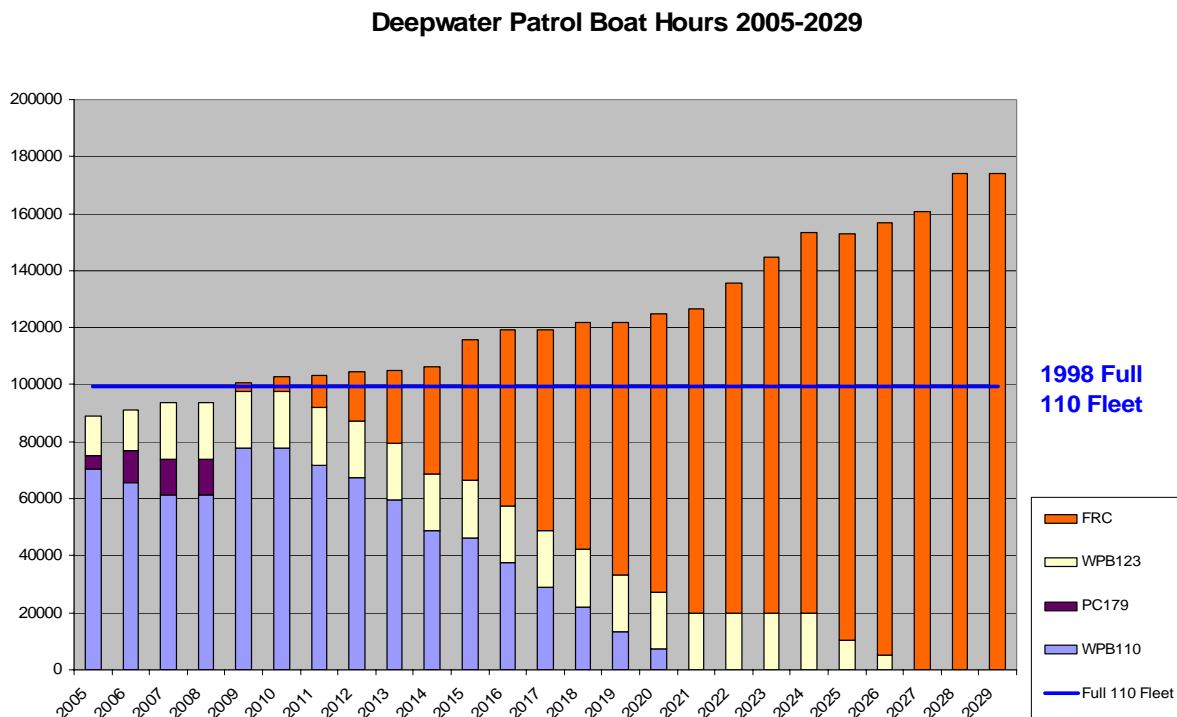
ASSUMPTIONS:

The following assumptions were used in building the following projected Deepwater Patrol Boat Availability:

- Twenty-three 110-ft. WPBs will complete MEP. Each MEP will remove the cutter from service for approximately 12 months. No more than four cutters a year will undergo MEP.
- Eight 123-ft. WPBs will not undergo MEP. Instead, necessary maintenance will be completed during regular dry-dock and dockside availabilities.
- The first twelve 110-ft. WPBs to be decommissioned will not undergo MEP.
- Six 110-ft. WPBs supporting of Operation Iraqi Freedom (OIF) return in time to begin stateside operations in FY09 (since we know of no plans for the boats to remain in Iraq indefinitely).

- Eight 123-ft. WPBs operate at 2500 hours per year. We are currently undergoing testing of the 123-ft WPB hulls to determine if they are able to fill this operational requirement.
- Five USN 179-ft. WPCs on loan from US Navy will be returned at the end of FY08 per the current Memorandum of Agreement.
- FRC delivery schedule will begin in early FY09.

OPERATIONAL HOURS AVAILABILITY GRAPH:



ANALYSIS AND FINDINGS:

The above graph details a Deepwater Patrol Boat hour gap below the 1998 110-ft. WPB fleet baseline until 2009. Again, the above graph assumes the (6) 110-ft. WPBs assigned to Operation Iraqi Freedom will return to assume domestic operations in FY09. In a worse case scenario, we will close the WPB gap by 2013 by FRC production alone if the 6 USCG 110-ft. WPBs supporting Operation Iraqi Freedom do not return by that time. Once the WPB gap is closed we will begin to decommission 110-ft. WPBs.

USN PC 179s:

The Coast Guard has a Memorandum of Agreement (MOA) with the Navy to retain five WPC-179-ft. patrol boats through FY08. Once the WPCs are returned, we intend to reallocate the \$23M annual operating budget for these cutters toward the operation of new FRCs, continued operation of 110-ft. cutters intended for decommissioning during

years 2008-2010, and fund additional WPB patrol boat hours to augment the current WPB fleet. These combined actions will help mitigate our Patrol Boat Hour Gap.

MEP MITIGATION:

Our Patrol Boat Hour Gap during the 110-ft. WPB MEP program will be partially mitigated by utilizing crews and operating funds assigned with the cutters undergoing MEP to multi-crew other patrol boats and enhance operations of other units within their home districts. Crews from one of the four cutters undergoing MEP will be temporarily reprogrammed to staff the Legacy Sustainment Support Unit (LSSU) at the Coast Guard Yard which will be managing the MEP program.

COASTAL PATROL BOATS:

This analysis does not include 87-ft. Coastal Patrol Boats (CPBs) hours, as they are not considered Deepwater assets and were not included in the original or revised Deepwater baseline. The CPB is a multi-mission platform that can perform some of the work traditionally done by 110-ft. WPBs. However, because of their smaller crews, shorter range and endurance, and sea-keeping limits, CPBs are traditionally assigned to inshore and near-shore missions, whereas 110-ft. WPBs spend much of their time offshore and forward deployed to areas of high security risk, such as smuggling transit zones. The original CPB acquisition project, started in 1993 (with a contract to Bollinger Shipyards in 1996), was programmed to replace the 37 aging 82-ft. patrol boats and provide the Coast Guard additional patrol boat capacity with up to 50 new CPBs. In fiscal years 2002 through 2004, Congress appropriated funding for 15 additional CPBs, bringing the expected total to 65. The 65th CPB is scheduled for delivery to the Coast Guard in January 2006. Although somewhat limited in their ability to perform more demanding offshore maritime security missions, the 15 additional CPBs procured after 9/11 will provide an additional 27,000 hours for multi-mission, close-to-shore use.

CONCLUSION:

The Coast Guard is able to manage its Deepwater Patrol Boat hour gap through the optimal use of existing resources until enough FRCs come on line to allow the service to begin decommissioning its 110-ft. WPB fleet. The Coast Guard will extend the life of its existing 110-ft. WPB fleet through MEP to ensure its legacy WPBs can reliably operate until fully replaced by FRCs. The Coast Guard will continue to mitigate its Deepwater patrol boat hour gap through the use of its recently built out 87-ft. CPB fleet which provides 27,000 patrol boat hours above acquisition plan, delayed decommissioning of 110-ft. WPBs until the gap is filled, and utilizing cutter MEP crews and operating funds to increase patrol hours of operational assets. These combined efforts will enable the Coast Guard to manage the transition to its new Deepwater Patrol Boat fleet to be fully delivered in 2027.